## AZ0633.ST25.txt SEQUENCE LISTING

```
<110> AstraZeneca AB
       Edlund, Anders
       Ekstrand, Jonas
        Johansson, Thore
       Leonardsson, Goran
<120>
       HUMAN GABA B RECEPTOR 1 PROMOTERS
<130>
       1103326-0633
<140>
       09/622,745
       2000-08-22
<14.1>
<150>
       PCT/SE00/00878
       2000-05-04
<151>
<160>
       26
<170>
       PatentIn version 3.2
<210>
       3903
<211>
<212>
       DNA
<213>
       Homo sapiens
<220>
<221>
<222>
       Misc_signal (1497)..(1503)
<223>
<220>
<221>
       GC_signal
       (3009)..(3016)
<222>
<223>
       Complement
<220>
<221>
       GC_signal
       (3037)..(3044)
<220>
       GC_signal
<221>
<222>
       (3116)..(3123)
<223>
       Complement
<400>
gatcatatta atttgaaggt ggcggggcag gatggttctg tggtgcagtt taagattaag
                                                                          60
aggcatacac cacttagtaa actaatgaaa gcctattgtg aacgacaggg attgtcaatg
                                                                         120
aggcagatca gattccgatt cgacgggcaa ccaatgaaac agacacacct gcacagttgg
                                                                         180
aaatggagga tgaagataca attgatgtgt tccaacagca gacgggaggt gtctactgaa
                                                                         240
aagggaacct gcttctttac tccagaactc tgttctttaa agaccaagat tacattctca
                                                                         300
attagaaaac tgcaatttgc ttccaccaca tcctgactac taccgtatag ttttctctat
                                                                         360
tettteattt ecceetteee catteettta etgtacataa agtaactggt atatgtgeae
                                                                         420
aagcatatta ctttttttt ttaaaactaa acagccaatg gtatgttttg attgacatca
                                                                         480
                                         Page 1
```

## AZ0633.ST25.txt

				, Attack of		
agtggagacg	ggggggaaaa	tactgattct	gtgaaaatac	cccctttctc	cattagtggc	540
atgctcattc	agctcttatc	tttatattcc	agtaagttat	tttgctctca	ctgttttaac	600
aacaacaaca	aaaaaacaac	aacataaaaa	tccttgcata	ccttgttcaa	ttggagaatt	660
ttaatgtttt	tcatttatca	ttgtaaaacc	aaggacaatt	ttataacttt	tttgtactta	720
gctgttacat	gcagagcaat	ctgtctttaa	gtagggataa	attactctaa	aacaaaaaag	780
aatcctagat	agttttccct	tcaagtcaag	cgtcttgttg	tttaaataaa	cttcttgttt	840
aaaaaaaaa	aaagtaaaaa	agaaaagtta	tgcaacaatt	aatggcccag	aggcaatcct	900
tgttaacatt	ttgatgcatc	ttttagctgt	ttttttttt	tttttttt	ttgactgagt	960
ttgactcttg	tcacccaggc	tgaagtgcaa	tggcatggca	tgatcttggc	tcactgcaac	1020
ctccgcctcc	cgggttcaag	tgattctcct	gcctcagcct	cctgagtagc	taggattacg	1080
ggcatgcacc	accatgcctg	gctaattttg	tatttttagt	agagttgggg	cttctccaca	1140
ctggtcaggc	tggtctcgaa	ctcccaacct	caggtgataa	gggaaggggc	actattgaca	1200
tttatggttg	gggcagaggt	gtaagatatt	cttcaaagca	ctacctacat	gttgaagaat	1260
tgttcctcac	ccagattctc	aaaagtcccc	caggacattc	acgtagtgaa	aacctgtgtt	1320
taattatctg	agcctataac	ttaatacagt	tttaaaattt	tttttaaat	atacagtgaa	1380
ctttctagga	atgcaattat	agttgtgtgt.	aaaattaggg	aaaattaact	ttgctaccaa	1440
gagttgttca	acattttgtt	aaatcacttc	attgatggca	acatgctgga	ggtagttgag	1500
tcaccaactc	agcacctgga	tcagcctgtg	ttggtagcag	tttcatcccc	gtggttctgt	1560
gaataggtgg	aagcatctgc	ttactccatc	aggacttcta	gggtagtcgg	gccttggcac	1620
tcacacatta	aaatactgtt	tatgttattt	tattgcaagt	tacttttctt	tcatttcccc	1680
tttacgttac	agaaagggaa	gcattttgct	ttctgtttaa	agttgtgtat	gtaggtaggt	1740
tatatcatct	awgactttct	ctccctcctt	ccctttcttt	ttgtttgaga	tggagtcttg	1800
ctctgtcacc	caggctggag	tgcagtggtg	cgatcttggc	tcactgcaac	ctctgcctcc	1860
cgggttcaag	cgattctggt	gtctcagctg	ggattacagg	cgcacaccat	cacaccacgc	1920
taatttttct	atttttagta	gagatggggt	ttcgccatgc	tggccaggcc	aggctggtct	1980
caaactcctg	agctcaagtg	atcagtccgc	ctcggcctcc	caaagttctg	ggatttcagg	2040
cgtgagcctc	atctatgaat	ctcaatttag	gacagtaaaa	gtgtcattac	aaaaatattt	2100
attgtaaaaa	agggttggag	gttgagaatc	tcaattctag	tcagtctctc	agtgtttggt	2160
ttcttcctac	cattrttccc	cctaggacca	gccagaaagc	agctttttt	ttgtcccccc	2220
caacaaggag	cccactgttt	cctctcccag	cccaaactca	ggcctacgaa	caacaacagc	2280
actacacaca	cacacacaca	cacacacaca	cacacacaca	cacccctcca	cttcaaggta	2340

			AZ0633.ST	25.txt		2.00
	cttctggagc					2400
	gtcaagaaat			17	,	2460
ggcttctaaa	ccaccctgag	gttcttttct	cttgtccttt	tactcccttc	gtacttcaat	2520
ttctctcctt	gatgtccccc	tccctgtttt	gttttttgcc	tccaatccgt	tctgcgcgtt	2580
ccctgcagag	caggcgagta	gcaatgctgc	tggaccatgg	agctgctcta	gtetcccaga	2640
aatctcttct	acacccaacc	cttcttgcgc	ttaggtggtc	ctcagtcccc	ctccccacc	2700
tccttctgac	ccaggcttct	ttctcgccct	ccggtcgcag	ttctcctggg	catctgcctc	2760
tgcctctctc	ctctcacccg	gatctagggc	tgccttctct	ttgtgcagcc	gtctttctcc	2820
accttcatcc	cagactccct	gtctcagcgc	cagctcctct	gcctttggct	cgggttccct	2880
ctcccccacc	ccagcttcca	gttgtttggc	ccgcaggtcc	ctcggcagtg	accggcgccc	2940
cccgacgagt	gcgtgtgcac	cagggcacct	ccctctcccc	cacctctcag	cccgcgcct	3000
ctccaccgcc	cgccccaccg	cgctgtgggc	ggtccagggc	ggggctggga	tccggggcgg	3060
ctcccggggc	tcgggttgtg	ggaggcgccc	tctccccggt	cttcccctct	cttccccccg	3120
ccctgccttc	ccttgcaccc	tccttcttcc	ctccgcccgg	gagctctccc	tggtccccgg	3180
cgccgcctcc	ttccctcccg	gctccccgct	cccgctccc	gtggctgccg	ccgccccggg	3240
gaagaagaga	caggggtggg	gtttggggga	agcgagagag	gaggggagag	accctggcca	3300
ggctggagcc	tggattcgag	gggaggaggg	acgggaggag	gagaaaggtg	gaggagaagg	3360
gaggggggag	cggggaggag	cggccgggcc	tggggccttg	aggcccgggg	agagccgggg	3420
agccgggccc	gcgcgccgag	gtaagagcca	gggccccggg	ttagcagggc	tcggagaggg	3480
ggcgcgcggc	gtggtggggg	agggggcagt	gggcgcaggg	cccagctggg	ggaagcgggg	3540
ctgggggaga	ggaggaaccg	cggggatgga	atcggggagc	gctgaggcgg	ccgatgccgg	3600
gagcgtgggt	aagccaggct	tctgcgagcc	gcgggggccg	ggggagagga	ggtggtgaga	36 <b>6</b> 0
ggtggagtcc	gggagggttg	ggggccgagg	gaggcaggag	gagggtgggg	acaggctttc	3720
tctcctcctc	tcccccacc	ccgcgcgggg	ctccgccccc	gcctcctccg	cggggcgctc	3780
tcttggtccc	caggctgagc	ccggtcggag	cctgcgaggc	aaccggcaag	aggtcgagta	3840
gtctccgggt	gcgggccgcg	ccggcggggc	tcggtccagt	cctcatggcc	gcctctcact	3900
tag						3903

<210> 2 <211> 4594 <212> DNA <213> Homo sapiens

<220> <221> Misc\_binding

```
AZ0633.ST25.txt
<222>
       (3844)..(3851)
<220>
<221>
       GC_signal
       (4080)..(4087)
<222>
       Complement
<223>
<220>
       GC_signal
       (4196)..(4205)
<222>
       complement
<220>
<221>
       GC_signal
       (4241)..(4249)
<222>
       Complement
<220>
       GC_signal (4272)..(4279)
<221>
<222>
<223>
       Complement.
<220>
<221>
       Misc_binding
<222>
       (4308)..(43\bar{1}5)
<223>
<220>
       Misc_binding (4375) . (4381)
<221>
<222>
<223>
       Initiator
<400>
atgttgetge tgetgetaet ggegeeacte tteeteegee eeeegggege gggegggeg
                                                                         60
cagaccccca acgccacctc agaaggtgca tecttetteg acgacctccg geoctectte
                                                                        120
getecactic cetticectg catetectea titetggice teatcactat eccateagte
                                                                        180
ccacatatca teceggicig geaaceeett etgeteggee egaetttaet aetgetgaee
                                                                        240
tectionize accepangli actatecage acceptific forgodiaca ingetacact
                                                                        300
ataccaectt cotgtgcatt trottogect caateccett teccagecee acattactae
                                                                        360
ctcaattact ccctttctt ggtcccactt tgctgtccag atgatcttat tagcctcct
                                                                        420
ttateeteet ateetaatte aactggaata teeteattta geettttttt ttaaagaaaa
                                                                        480
                                                                        540
getecaecca catateatae cetteatgat ttettaatta ettitette ttaectecae
ccagcaccet teceteccca ettgtgggtt eteteateag etttaaccet ggecetttae
                                                                        600
tetetgteet tragecaggg gatetgtace tgteeceaet eccaecetet agtgeeceat
                                                                        660
contented engineering congectaca gaccaegeee factoreee treetecae
                                                                        720
                                                                        780
tggggagcct gccttttcct ctttcccacc attcctctct gfatgcctcc ccgactcacc
ccttaggttg ccagatcata cacccgcct gggaaggggg catcaggtac cqqqqcctqa
                                                                        840
ctcgggacca ggtgaaggct atcaacttcc tgccagtgga ctatgagatt gagtatgtgt
                                                                        900
                                        Page 4
```

## AZ0633.ST25.txt

			4 41 4 4	1 1		
gccgggggga	gcgcgaggtg	gtggggccca	aggtccgcaa	gtgcctggcc	aacggctcct	960
ggacagatat	ggacacaccc	agccgctgtg	gtgagtagcc	tcggaagccc	ctcccctctt	1020
caagactatt	ccttttcctg	ccgcaaactt	agcattactg	cttgcaagtc	agcactttaa	1080
atccagtata	ccaaaattca	caaatacatt	tattgaatga	ctactacata	agagcaattt	1140
tgctctgtgc	ggttggaggt	agtagagcta	gcagcctgca	cagttcattt	catcctccct	1200
tcattaggcc	actgatcatt	ggcctataac	attgataatt	catcttgtca	gttattctct	1260
ttgaggatca	ttagtggcag	atgatgacaa	aaaaattcta	aaatgatttc	atcacatttt	1320
tgaatacctc	tgtcaccaac	ccagagacca	tatgcccaag	aaacaaaagc	cagtttaata	1380
ttaatagaag	ccaactataa	taagaaaagc	aaatctgatt	gtgcatccaa	agttatatac	1440
atctacatat	ttcaaagcca	gagaaccgcc	cactgtagct	gactttgaag	agatcccatt	1500
ttgtgtgctt	atagccccat	cttgggttcc	taaaatggta	atttttttt	tcttttggga	1560
atgtgtggat	gcttgcacag	gtaagggagg	attggaagat	aggtaggcaa	atccttttca	1620
catgtgattt	tctttagagc	aggatgcttg	tggacccaaa	cctgcacctg	agtcccctgc	1680
tctttaaagg	gaaagagcct	tcttcaactc	gcctctcttc	ttattttcct	atctctccac	1740
agtccgaatc	tgctccaagt	cttatttgac	cctggaaaat	gggaaggttt	tcctgacggg	1800
tggggacctc	ccagctctgg	acggagcccg	ggtggatttc	cggtgtgacc	ccgacttcca	1860
tctggtgggc	agctcccgga	gcatctgtag	tcagggccag	tggagcaccc	ccaagcccca	1920
ctgccagggt	gaggggaaca	gctgcctgca	tgcagctgat	gaggacgctt	gtgtgaggat	1980
gggagtgggg	tgggaatgga	taatgggaaa	gaatggagag	ctataaaaat	gtgggggagg	2040
acactggaaa	ggggagatga	aagtcccttt	ttcctccatc	acctgcctca	aacttcctct	2100
tgcagtcccc	ggtatcctct	gtaggttggg	ggcttccttc	ctttaccttt	taaaaaaatc	2160
ttcctgctcc	cgattcttag	acctcacgtt	ttctcttttc	ctttatgaat	ctcacctctc	2220
tcaccttctt	caggtttaaa	tactccaatt	ttccctttct	ctaaacttag	aaatttccat	2280
gcatcaccct	cttctagaat	tcatccctca	ccattcctta	tataattgat	ttattgtaaa	2340
gactcagaaa	taaatcaaac	attctactaa	gaaaaattga	gaaggggagc	tctgggggtg	2400
gaaacatatt	agggtaaaag	acttaaaatt	ggaggcagca	ttatcagaag	atgaagaaca	2460
actcagggat	ggggtgggaa	gaagacaggt	ccttttctgk	acttcctaga	caacctccat	2520
tattccctaa	gggaatcagt	gttgtgtctg	tctacytttt	tttttttt	tttgccacgt	2580
aattttacaa	actctccctt	ttctaggcac	ccgaactctc	tgccatcttc	tctcctggga	2640
tgcagtcatc	ccatttgtat	gcctcatact	tcctctaccc	tggtagattc	tttcaagatc	2700
cttgggcttt	actttcctca	cataactcag	ttattctgct	tctagtttac	cattttattc	2760
				_		

	tggaaattga	gagtcccatc	caggggtgga	AZ0633.ST cttatgacac		tagacttcaa	2820
	ggttcctcac	ctacagggcc	ctcttcctgt	gctctaataa	tatagagggc	tcgatggata	2880
	tgtgttcata	tggtaacagg	cttttgtaäa	aattgcagaa	ataagatttt	aacagcaatt	2940
	gcttaaagcc	aattgtatgt	gtaattttt	ttcttaaaga	ctcccaattt	tgtaatattc	3000
	aggcaccaca	gaaccaagat	ctgccccaaa	cttagctatt	ggcattcccg	tctcaaattc	3060
	tgttgtccta	tgaaaaatcg	aagaagaaaa	taagtcctga	cccccttacc	cccagaccca	3120
	ccttgttctt	atccccaggc	accetecect	cagaaacgca	ggcttctgct	ctccccggtc	3180
	ttcagcatgg	acaggtgtgg	gagggggctg	gggatcaggc	cagggaagct	gggcgccagt	3240
	ggtaactctt	ctctgatccc	cgtctttcct	gctgccagtg	aatcgaacgc	cacactcagg	3300
	tgagatgaga	aacccttacc	gcgcgcactg	caatgccctc	cccttcactc	tgcaccctcc	3360
	accccctga	aattctgccc	ttaggctacg	gggcgtcgtc	ctttcgcacc	ttccccaacc	3420
	caccccagtt	tgcggccacc	cccttccctc	cctacctgtt	tcctgcctcc	agtcccggtt	3480
	ttccacgagg	ctgcggtctc	tccttgtccc	tgcttggcta	cacttccctg	ggctccacct	3540
	cctcccagac	tgagcctcgc	cggtgtcagg	cagageccag	cagarggcgg	cagggtgctg	3600
	ggagaccctg	agctcccacc	acgttttccc	ctgtggggtt	ccttgcgacc	ttcgctggaa	3660
	ccttttccag	cctgctgcct	cctaggattt	cacctaatgg	actttctcag	cctgtcccac	3720
	ccatcccaac	cctggccagg	cctctcgcgc	tcttccccac	atcttttcct	tccgtgtacc	3780
	ccttccctcg	tcttttctca	attccatgtc	ctgtctccct	ttcttaggct	tctgtctacc	3840
	cagccccagg	ctcccttcca	cgaccccacc	actccctcaa	accagcctcc	cttccgtacc	3900
	caactcgttc	cctccaaaac	cgtttcctct	ccccacatc	ctcagtgctt	cactgtatcg	3960
	actcatactc	ccacttcaga	cctcaggcgc	cagccccgtt	tctctcccgt	cccactcgca	4020
	tccttccctt	cctaccctgg	ttcctccgtg	cttcagcctc	ccgcggctcc	ctccgcccac	4080
	cccgccctcc	tggcacgccc	cgtccccatt	tctcctcccc	tcgggtcccc	ttaagtgaga	4140
l	tccctccctt	cctctttcgt	tcctttcctc	ctcgaggttg	catccccct	cccctccccg	4200
	cccctccgac	tgtcgctccc	acctcggcgc	tcgcttccct	cccgcccc	ttcctgcctc	4260
	cccagctccc	gcccgccccc	ccaccccccg	ctgccgcgcg	ccgcccgtga	cgtcagagcc	4320
	ccctcccagc	cccacatctc	cctcctgctc	ctcctcctcc	cctccgtcgg	tcagtcagtc	4380
	cgcgaggaga	gtccgcggtg	gcggcgacgg	tggcgagagc	cgcgggggcc	gtaggaagcc	4440
	aaccttccct	gcttctccgg	ggccctcgcc	ccctcctccc	cacaaaatca	gggatggagg	4500
	cgcctccccg	gcaccctctt	agcagccctc	cccgggaaa <b>a</b>	gtgtccccc	tgagctccta	4560
	acgctcccca	acagctaccc	ctgcccccca	cgcc			4594

Page 6

```
AZ0633.ST25.txt
  <210>
         23
  <211>
  <212>
         DNA
  <213>
         Artificial
  <220>
        HindIII site fused to Pla seq 3440-3424
  <223>
 <400>
 aagcttctcg gcgcgcgggc ccg
                                                                           23
 <210>
 <211>
        24
 <212>
        DNA
 <213>
        Artificial
 <220>
 <223> Nher fused to Pla sequence 2341-2362
 <400> 4
 gctagccaag agcttctgga gccg
                                                                          24
 <210>
 <211>
        25
 <212>
        DNA
        Artificial
 <220>
 <223> NheI fused to Pla 720-741
<400>
gctagctgtt acatgcagag caatc
                                                                          25
<210>
<211>
       21
 <212>
       DNA
       Artificial
<223> HindIII site fused to Plb sequence 4439-4421
<400> 6
aagcttccta cggcccccgc q
                                                                         21
       24
       DNA
       Artificial
       NheI site fused to Plb sequence 3321-3340
<223>
gctagcgcgc actgcaatgc cctc
<210>
       8
<211>
      26
<212>
      DNA
```

```
AZ0633.ST25.txt
  <213> Artificial
  <220>
  <223> P R 1b Cre Fwd
  <400> 8
  cgccgcccgt ttggtcagag ccccct
                                                                            26
  <210>
  <211>
         26
  <212>
         DNA
  <213>
         Artificial
  <223> P R 1b Cre Rev
 <400> 9
 agggggctct gaccaaacgg gcggcg
                                                                            26
 <210>
        26
 <212>
        DNA
        Artificial
 <213>
 <220>
        P R la GCI FWd
 <223>
 <400> 10
 ctctcttccc ccctaactgc cttccc
                                                                           26
 <210>
        11
 <211>
        26
 <212>
        DNA
 <213>
        Artificial
 <220>
<223> PR la GCI Rev
<400> 11
gggaaggcag ttagggggga agagag
                                                                           26
<210>
       26
<211>
<212>
       DNA
<213>
       Artificial
<220>
<223>
       P R la GCII Fwd
<400> 12
ggcggtccag ttaggggctg ggatcc
                                                                          26
<210>
       13
26
<211>
<212>
       DNA
<213>
       Artificial
<220>
```

Page 8

```
AZ0633.ST25.txt
 <223> P R la GCII Rev
 <400> 13
 ggatcccage cectaactgg accgce
                                                                           26
 <210>
 <211>
        30
        DNA
 <213>
        Artificial
 <220>
 <223>
        P R la GCIII Fwd
 cctctccacc gccctaacca ccgcgctgtg
                                                                           30
 <210>
        30
        DNA
        Artificial
 <213>
<220>
<223>
       PR la GCIII Rev
<400> 15
cacagcgcgg tggttagggc ggtggagagg
                                                                          30
<210>
        16
<211>
        28
 <212>
       DNA
       Artificial
<213>
<220>
<223> P R 1b GCIV Fwd
<400> 16
ccccagetee egecetaace eccaecee
                                                                          28
<210>
       28
<211>
<212>
       DNA
<213>
       Artificial
<220>
<223>
       P R 1b GCIV Rev
<400> 17
ggggtggggg ttagggcggg agctgggg
                                                                          28
       18
<211>
       27
<212>
       DNA
<213>
       Artificial
<220>
<223>
       P R 1b GCV Fwd
<400>
       18
```

Page 9

egett	ccctc ccctaaccct tcctgcc	AZ0633.ST25.txt	27
<210> <211> <212> <213>	27 DNA		
<220> <223>	P R 1b GCV Rev		
<400> ggcagg	19 gaagg gttaggggag ggaagcg		27
<210> <211> <212> <213>	27 DNA		
<220> <223>	P R 1b GCVI Fwd		
<400> ccctcd	20 Ecctc ccctaacctc cgactgt		27
<210> <211> <212> <213>	27		
<220> <223>	P R 1b GCVI Rev		
<400> acagtc	21 ggag gttaggggag gggaggg		27
<210> <211> <212> <213>	26		
<220> <223>	P R 1b GCVII Fwd		•
<400> ctccgc	22 ccac ccctaactcc tggcac		26
<210> <211> <212> <213>	23 26 DNA Artificial		٠.
<220> <223>	P R 1b GCVII Rev		
<400> gtgccag	23 ggag ttaggggtgg gcggag		26

Page 10

AZ0633.ST25.txt <210> 24 28 <212> DNA Artificial <213> <220> <223> P R 1b GCIVd Fwd <400> 24 ccccagctcc ctaactaacc cccacccc 28 <210> 25 <211> 28 <212> DNA <213> Artificial <220> <223> P R 1b GCIVd Rev <400> 25 ggggtggggg ttagttaggg agctgggg 28 <210> 26 <211> 26 <212> DNA Artificial <213> <223> P 1 b consensus CRE sequence <400> 26 cgccgcccgt gacgtcagag ccccct 26